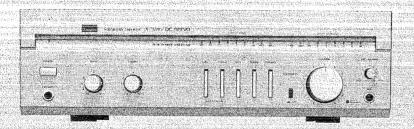
# SERVICE MANUAL

## INTEGRATED AMPLIFIER

# SANSUI A-M9



#### • SPECIFICATIONS

Power output

Min. RMS, both channels driven, from 20 to 20,000 Hz. with no more than 0.07 % total harmonic distortion

70 watts per channel into 8 ohms

Load impedance . . . . 8 ohms

Total harmonic distortion

. . . . . . . . . . . less than 0.07 % at or below rated

min. RMS power output

Frequency response (at 1 watt)

10 to 60,000 Hz/+0.5 dB, -2 dB

RIAA curve deviation (PHONO, 30 Hz to 20 kHz) . . . . . . . . . . . +0.5 dB, -0.5 dB

Input sensitivity and impedance (1 kHz, for rated power output)

PHONO . . . . . . 2.5 mV/47 kilohms

(Max. input capability; 150 mV at 1 kHz, less than

0.1 % total harmonic distortion)

AUX, TUNER, TAPE PLAY

. . . . . . . . . 150 mV/47 kilohms

MIC .... .... 0.5 mV/10 kilohms

Output level (1 kHz)

TAPE REC . . . . . 130 mV into 47 kilohms

Signal to noise ratio (short-circuit, A-network)

PHONO .... 72 dB AUX, TUNER, TAPE PLAY

..... 100 dB

Power requirements

Power voltage .... 120/220/240 V (50/60 Hz)

For U.S.A. & Canada

. . . . . . . . . . 120 V (60 Hz)

Power consumption

290 watts Maximum

. . . . . . . . 345 mm (13-9/16") W

105 mm (4-7/8") H 248 mm (9-3/4") D

Weight . . . . . . . . . 4.8 kg (10.6 lbs.) net

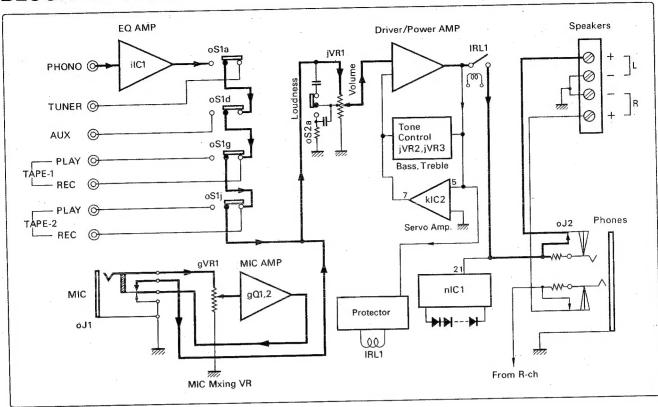
5.4 kg (11.9 lbs.) packed

Design and specifications subject to changes without notice for improvements.

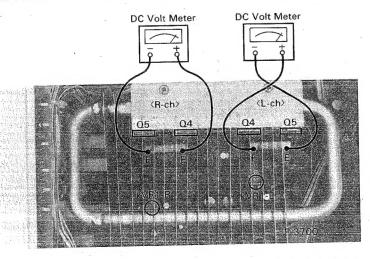


SANSUI ELECTRIC CO., LTD.

## 1. BLOCK DIAGRAM



## 2. BIAS CURRENT ADJUSTMENT (Refer to picture below)



#### Note:

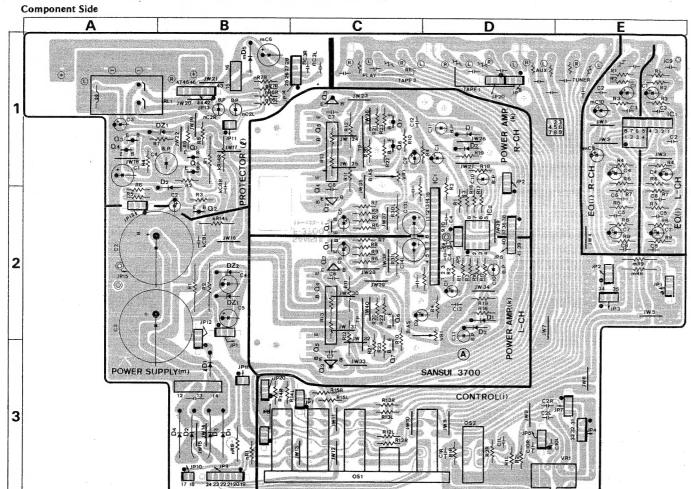
- 1. Room Temperature . . . . . . . . . . . . . . .  $18^{\circ}$  C  $\sim 38^{\circ}$  C
- 2. For adjustment, run the unit for more than 3 minutes after
- 3. Before turning ON POWER switch, turn kVR1 on F-3700 fully counterclockwise.

| STEP | SUBJECT | MEASURE OUTPUT  | ADJUST                | ADJUST FOR | REMARKS   |
|------|---------|---|-----------------------|------------|---|
| SIEF | SUBJECT | 1774  |                       |            |   |
| 1.   | L-CH    | Connect DC volt meter between emitters of kQ <sub>4</sub> , kQ <sub>5</sub> on F-3700 | kVR1 (L-CH)<br>F-3626 | DC 3mV     | This bias current adjustment converts current value into voltage by ohms law. |
| 2.   | R-CH    | Same as above   | kVR1 (R-CH)<br>F-3626 | DC 3 mV    |   |

## 3. PARTS LOCATION & PARTS LIST

3-1. F-3700 EQ Amp./Power Amp. Circuit (Stock No. 00686601)

•Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors, which was appended previously to Sansui Manual.



| Parts   | 1 ict |
|---------|-------|
| I al L3 | LISE  |

| Stock No.   | Description   | Parts No.                           | Stock No.   |
|-------------|---|-------------------------------------|---|
| 46170200    | 100kΩ (B) x 2 VR,   | <ul> <li>Transistor</li> </ul>      |   |
|             | VOLUME  | IQ1                                 | 03010901  |
|             |   | IQ2                                 | 07194701  |
| •           |   |                                     | 07194701  |
| 03067401    | 2SC1845   | . — .                               | 07194701  |
| 07206401    | 2SD600  | 1Q5                                 | 03010901  |
| 07206301    | 2SB631  |                                     |   |
| 46085301    | 2SC2581   | <ul><li>Diode</li></ul>             |   |
| or 07203301 | 2SC2579   | ID1                                 | 03117600  |
| 46085401    | 2SA1106   | ID2                                 | 03117600  |
| or 07203201 | 2SA1104   |                                     |   |
| 07194801    | 2SC1815   | <ul> <li>Zener Dio</li> </ul>       | de  |
| 07194701    | 2SA1015   | IDZ1                                | 03180200  |
|             |   | IR1                                 | 00186300  |
| 46253800    | STK3082   | IC4                                 | 08460200  |
| 03607700    | NJM4558D  | 104                                 | 00400200  |
| 00001700    | 0330 v 2 5W Co B  | IRL1                                | 46254900  |
|             | 0.000.00  | • Diodo                             |   |
| 00173000    | 1024 114 14.1.11.   |                                     | 03115300  |
| 08450900    | 4.7µF 16V E.B.  | mo 1~4                              | 03115300  |
| 08450100    | 10µF 6.3V E.C.  | ●Zener Dio                          | de  |
| 46306200    | 10µF 6.3V E.C.  |                                     | 03180000  |
| 46306200    | 10μF 6.3V E.C.  |                                     |   |
|             |   | mR1                                 | 00187400  |
| 07240900    | 500Ω (B) SVR, bias  | mR2                                 | 00187400  |
|             | 46170200  03067401 07206401 07206301 46085301 or 07203301 46085401 07194801 07194701  46253800 03607700  00091700 00179000  08450900 08450900 46306200 46306200 | 46170200   100kΩ (B) x 2 VR, VOLUME | 46170200 100kΩ (B) x 2 VR, VOLUME  03067401 2SC1845 1Q4 07206401 2SD600 1Q5 07206301 2SB631 46085301 2SC2581 •Diode 0707203201 2SA1106 1D2 0707203201 2SA1104 07194801 2SC1815 •Zener Dio 07194701 2SA1015 IR1  46253800 STK3082 1C4 03607700 NJM4558D IC4 00091700 0.33Ω x 2 5W Ce.R. 00179000 10Ω 1W N.I.R. •Diode mD1~4  08450900 4.7μF 16V E.B. 08450100 10μF 6.3V E.C. 46306200 10μF 6.3V E.C. 46306200 10μF 6.3V E.C. mR1 |

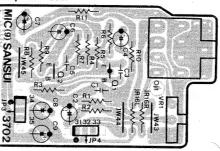
| Parts No.  | Stock No. | Description     |
|------------|-----------|-----------------|
| Transistor |           |                 |
| IQ1        | 03010901  | 2SA992          |
| IQ2        | 07194701  | 2SA1015         |
| IQ3        | 07194701  | 2SA1015         |
| IQ4        | 07194701  | 2SA1015         |
| 1Q5        | 03010901  | 2SA992          |
| ●Diode     |           |                 |
| ID1        | 03117600  | 1S2473D         |
| ID2        | 03117600  | 1S2473D         |
| ●Zener Dio | ode       |                 |
| IDZ1       | 03180200  | RD24E-B         |
| IR1        | 00186300  | 1.2kΩ 2W N.I.R. |
| IC4        | 08460200  | 220µF 6.3V E.C. |
|            |           |                 |
| IRL1       | 46254900  | Relay           |
| •Diode     |           |                 |
| mD1~4      | 03115300  | 30D-2           |
|            |           |                 |
| . = -      |           |                 |

RD22E-B

1.8kΩ 2W N.I.R. 1.8kΩ 2W N.I.R.

| Parts No. | Stock No. | Description                |
|-----------|-----------|----------------------------|
| mC2       | 08301800  | 6800µF 63V E.C.            |
| mC3       | 08301800  | 6800µF 63V E.C.            |
| oS1       | 46164800  | Push SW, SELECTOF          |
| oS2       | 46164900  | Push SW, LOUDNESS          |
|           | 07249000  | 2P Input Terminal<br>Board |
|           | 07249100  | 4P Input Terminal<br>Board |
|           | 46118300  | Speaker Terminal<br>Board  |
| ●IC       |           |                            |
| iIC1      | 46078900  | M5218L                     |

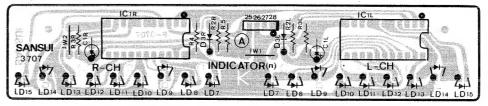
### 3-2. F-3702 Mic Amp. Circuit Board (Stock No. 00686801)



| Parts No.  | Stock No. | Description              |
|------------|-----------|--------------------------|
| oJ1        | 46164600  | Jack, MIC                |
| Transistor |           |                          |
| gQ1        | 03010901  | 2SA992                   |
| gQ2        | 07225401  | 2SC2320L                 |
| gC5        | 46137800  | 680pF 50V C.C.           |
| -V/D4      | 07400704  | 001 = (1) = 1 = 1        |
| gVR1       | 07106701  | 20kΩ (A) SVR, MIC MIXING |

## 3-3. F-3707 Level Indicator Circuit Board (Stock No. 00687301)

#### Component Side



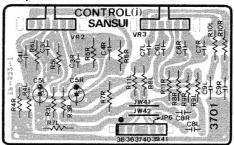
| Parts No.     | Stock No. | Description |  |
|---------------|-----------|-------------|--|
| ◆IC<br>nIC1   | 07246000  | IR2431      |  |
| ●Diode<br>nD3 | 03103300  | 1N60        |  |

| Parts No. | Stock No. | Description                    |
|-----------|-----------|--------------------------------|
| nLD7~15   | 46169300  | Light Emitting Diode SEL-1210S |
| nC2       | 08451700  | 1μF 50V E.B.                   |

• Note: The circuit board, F-3701, F-3703, F-3704, F-3705 & F-3706 are not supplied as the assembled. However, the individual parts on the circuit board are provided by orders.

#### 3-4. F-3701 Tone Control Circuit Board

#### Component Side



| Parts List |           |                           |  |  |
|------------|-----------|---------------------------|--|--|
| Parts No.  | Stock No. | Description               |  |  |
| jVR2, 3    | 46254800  | 50kΩ (C) VR, BASS, TREBLE |  |  |
| jC6        | 46137800  | 680pF 50V C.C.            |  |  |

#### 3-5. F-3703 Phone Jack Circuit Board

| Parts List |           |              |   |
|------------|-----------|--------------|---|
| Parts No.  | Stock No. | Description  | - |
| oJ2        | 46164700  | Jack, PHONES |   |

### 3-6. F-3704 Indicator Circuit Board

| Parts List |           |                             |
|------------|-----------|-----------------------------|
| Parts No.  | Stock No. | Description                 |
| nLD1~5     | 46095200  | Light Emitting Diode TLR123 |

### 3-7. F-3705 Power Fuse Circuit Board

#### Parts List

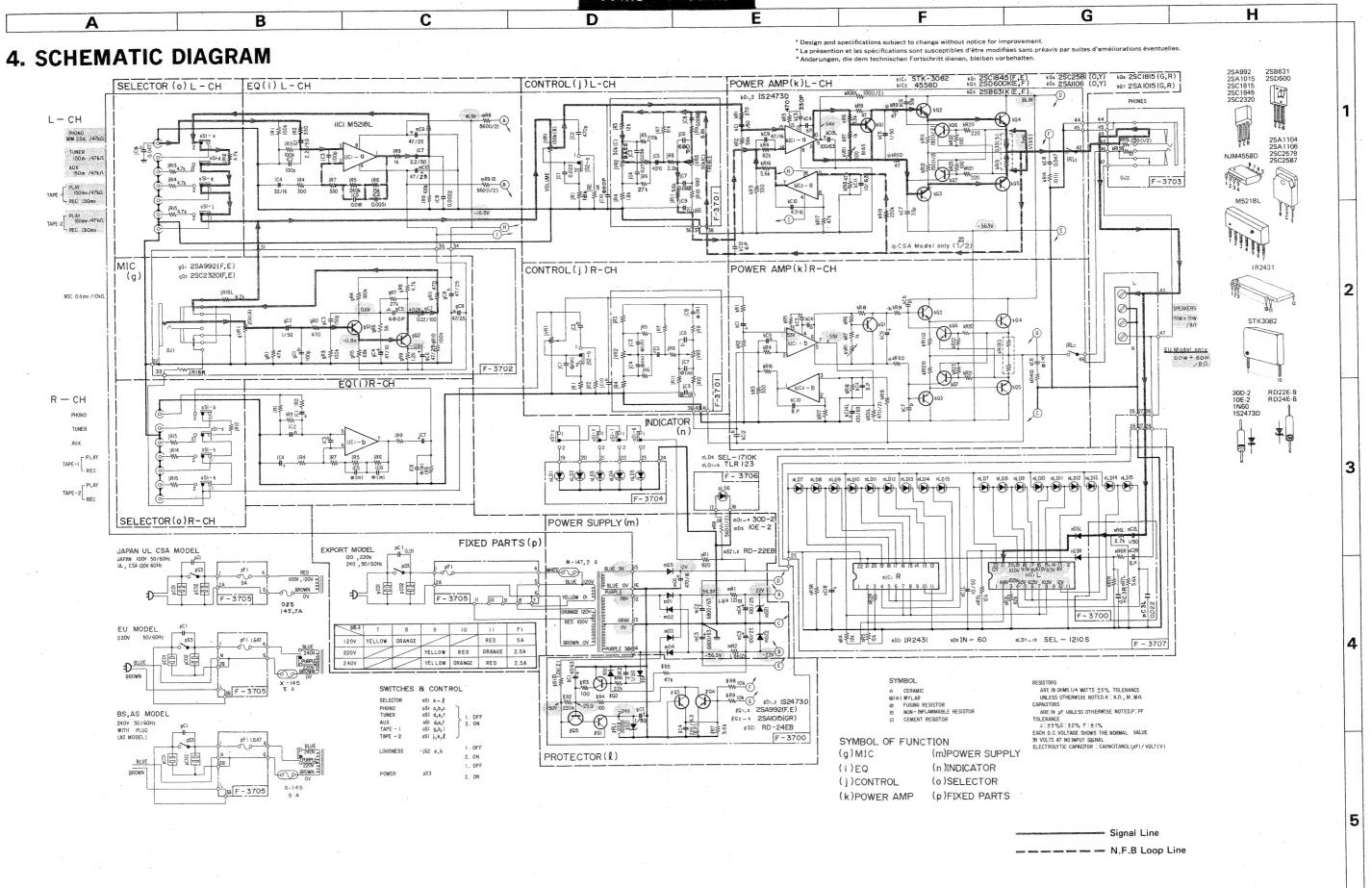
| TATES LIST |           |                  |  |
|------------|-----------|------------------|--|
| Parts No.  | Stock No. | Description      |  |
| pF1        | 07189100  | Fuse 5A (120V)   |  |
|            | 07188700  | Fuse 2.5A (240V) |  |

#### 3-8. F-3706 Power Indicator Circuit Board

#### Parts List

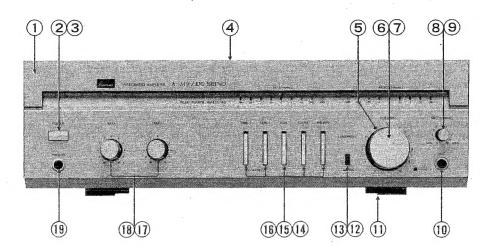
| Parts No. | Stock No. | Description          |
|-----------|-----------|----------------------|
| nLD6      | 07209100  | Light Emitting Diode |

| E.B. : Bi-Polar Electrolytic Capacit |
|--------------------------------------|
| E.BL. : Low Leak Bi-Polar Electroly: |
| Capacitor                            |
| Ta.C. : Tantalum Capacitor           |
| F.C. : Film Capacitor                |
| M.P. : Metalized Paper Capacitor     |
| P.C. : Polystyrene Capacitor         |
| G.C. : Gimmic Capacitor              |
| V.R. : Variable Resistor             |
| S.V.R.: Semi Variable Resistor       |
| SW. : Switch                         |
|                                      |

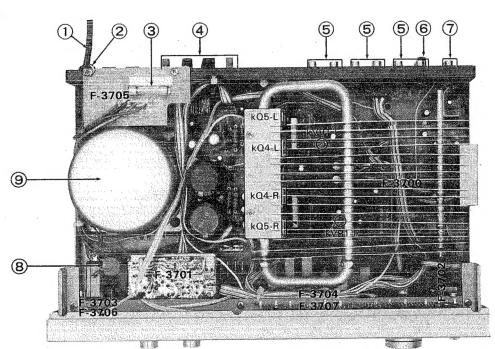


## 5. OTHER PARTS

### 5-1. Front View



5-2. Top View



Parts List <Front View>

| Parts No. | Stock No. | Description                |  |  |
|-----------|-----------|----------------------------|--|--|
| 1         | 07887300  | Front Panel Ass'y          |  |  |
| 2         | 07828200  | Push Knob, POWER           |  |  |
| 3         | 07224300  | Push SW.,                  |  |  |
| 4         | 07884510  | Bonnet                     |  |  |
| 5         | 07831900  | Knob, master VR R-ch       |  |  |
| 6         | 07832000  | Knob, master VR L-ch       |  |  |
| 7         | 46170200  | 100kΩ (B) VR, master       |  |  |
| 8         | 07834700  | Knob, MIC VR               |  |  |
| . 9       | 07106701  | 20kΩ (A) VR, MIC           |  |  |
| 10        | 46164600  | Jack, MIC                  |  |  |
| 11        | 07847500  | Leg                        |  |  |
| 12        | 07828800  | Push Knob, LOUDNESS        |  |  |
| 13        | 46164900  | Push SW., LOUDNESS         |  |  |
| 14        | 07828300  | Push Knob, TAPE-1, 2, AUX, |  |  |
| 15        | 46164800  | Push SW., JTUNER, PHONO    |  |  |
| 16        | 46169300  | L.E.D. SEL-1210S           |  |  |
| 17        | 07884300  | Knob, TREBLE, BASS         |  |  |
| 18        | 46254800  | 50kΩ VR, I REBLE, BASS     |  |  |
| 19        | 46164700  | Jack, PHONES               |  |  |

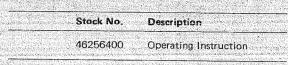
Parts List <Top View>

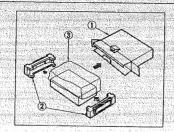
| Parts No. | Stock No. | Description                        |  |  |
|-----------|-----------|------------------------------------|--|--|
| 1         | 38004700  | Power Supply Cord                  |  |  |
| 2         | 39106000  | Strain Relief                      |  |  |
| 3         | 07189100  | Fuse 5A (120 V)                    |  |  |
|           | 07188700  | Fuse 2.5A (240 V)                  |  |  |
| -4        | 46118300  | 4P Output Terminal, speaker        |  |  |
| 5 .       | 07249100  | 4P Input Terminal, TUNER, AUX TAPE |  |  |
| 6         | 22301500  | Gnd Terminal                       |  |  |
| 7         | 07249000  | 2P Input Terminal                  |  |  |
| 8         | 08302600  | 0.01µF 125V C.C.                   |  |  |
| 9         | 15006901  | Power Transformer                  |  |  |

## 6. PACKING LIST

## 7. ACCESSORY LIST

|       | CARLET WIFE      |  | Mark Market Street  | Contract to the   | Michigan Street      |            |  |  |
|-------|------------------|--|---------------------|-------------------|----------------------|------------|--|--|
|       | Parts            | No.  | Stock N             | o                 | Descrip              | tion       |  | and the second of the second o |
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